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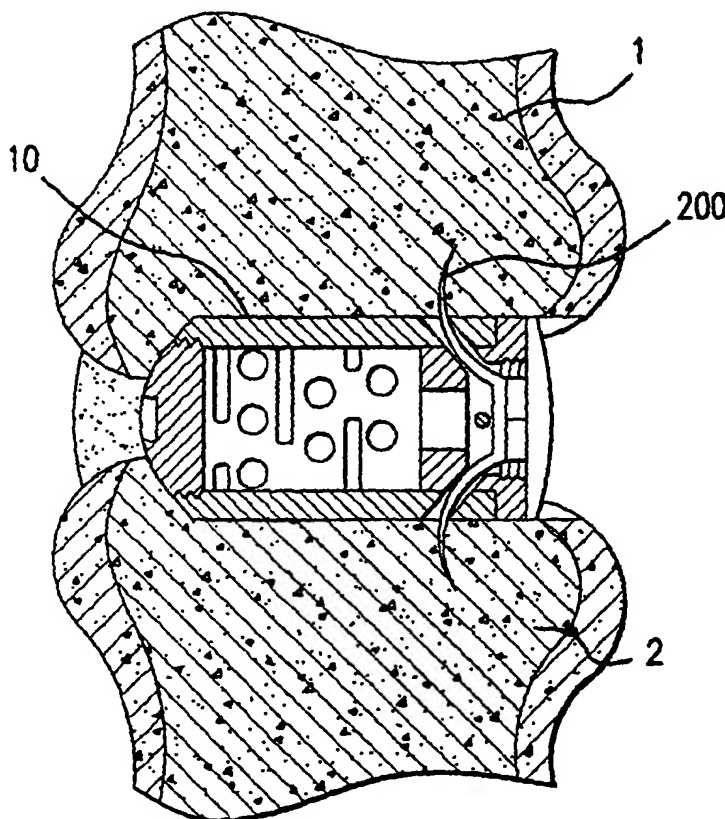
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- (71) Applicant and (72) Inventor: **BRAMLET, Dale, G.** [US/US]; 2044 Brightwaters Boulevard, N.E., St. Petersburg, FL 33704-3010 (US). (84) Designated States (*regional*): ARIPO patent (GH. GM. KE. LS. MW. MZ. SD. SL. SZ. TZ. UG. ZW), Eurasian patent (AM. AZ. BY. KG. KZ. MD. RU. TJ. TM), European

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(54) Title: **APPARATUS AND METHOD FOR FUSING OPPOSING SPINAL VERTEBRAE**



(57) Abstract: An apparatus and method for fusing opposing spinal vertebrae is disclosed. In an embodiment for a spinal implant of the present invention, the implant includes a body assembly (100) and a retention member (200) coupled to the body assembly. The retention member includes a tang (220) where the tang is extendible from the body assembly. In a method of the present invention, the method includes the step of inserting an implant between adjacent vertebrae with a retention member of the implant in a first retracted configuration. The method also includes the step of configuring the retention member in a second extended configuration wherein the retention member is in its second extended configuration, a portion of a tang of the retention member extends from the implant and into one of the adjacent vertebrae.

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## INTERNATIONAL SEARCH REPORT

International Application No

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**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 A61F2/44

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 951 879 A (MEDINORM AG) 27 October 1999 (1999-10-27) claims 1,11; figures 7,8 ----	1-17
A	EP 0 637 439 A (KARLIN TECHNOLOGY INC) 8 February 1995 (1995-02-08) column 12, line 43 -column 13, line 15 ----	1-17
A	EP 0 697 200 A (SCHAEFER MICOMED GMBH) 21 February 1996 (1996-02-21) abstract -----	1-17



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

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# INTERNATIONAL SEARCH REPORT

information on patent family members

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0951879	A	27-10-1999	DE 19818143 A1	28-10-1999
			EP 0951879 A2	27-10-1999
			JP 11347056 A	21-12-1999
EP 0637439	A	08-02-1995	EP 0734702 A1	02-10-1996
			EP 0637439 A1	08-02-1995
			AT 119015 T	15-03-1995
			AU 3965489 A	23-01-1990
			CA 1333209 A1	29-11-1994
			CA 1337842 A1	02-01-1996
			DE 68921482 D1	06-04-1995
			DE 68921482 T2	20-07-1995
			DE 425542 T1	24-09-1992
			EP 0425542 A1	08-05-1991
			JP 2796544 B2	10-09-1998
			JP 3505416 T	28-11-1991
			WO 9000037 A1	11-01-1990
			US 6120502 A	19-09-2000
			US 5609635 A	11-03-1997
			US 5522899 A	04-06-1996
			US 5776199 A	07-07-1998
EP 0697200	A	21-02-1996	DE 9413471 U1	21-12-1995
			AT 188369 T	15-01-2000
			DE 59507559 D1	10-02-2000
			EP 0697200 A1	21-02-1996
			US 5800547 A	01-09-1998